



Missouri Department of Natural Resources

Energy Efficiency & Renewable Energy (EE/RE) NOx SIP Set-Aside

Under the NOx Budget Trading Program in Missouri

Guide for Applicants

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INTRODUCTION

Missouri's Energy Efficiency and Renewable Energy (EE/RE) Set-Aside Program was established to provide financial incentives for energy efficiency or renewable generation projects that will improve air quality, stimulate local economic activity, diversify energy production in Missouri and provide greater power system reliability.

The U.S. Environmental Protection Agency (EPA) has encouraged states to incorporate an EE/RE set-aside program in its implementation of the NO_x SIP Call because a set-aside program will give "increased flexibility for meeting the National Ambient Air Quality Standards [and] will help sources reduce NO_x compliance costs and their emissions of greenhouse gases. Analyses show that this pollution prevention approach can reduce the costs of compliance with air standards and improve local economies through higher productivity and the creation of more jobs while increasing the gross state product."¹

This guide is intended to help sponsors² of EE/RE projects apply for and receive awards from the EE/RE Set-Aside Program administered by the Missouri Department of Natural Resources (DNR).

Awards from the set-aside are given in the form of NO_x (nitrogen oxides) allowances. A NO_x allowance is a certificate that allows its holder to emit one ton of NO_x during the summer ozone season. Anyone holding a NO_x allowance can sell it to the highest bidder. Recent market value of NO_x allowances has ranged from \$2,500 to \$3,000 per allowance.

Overview of Missouri's Response to the NO_x SIP Call

Missouri's set-aside was created as part of the state's response to the "NO_x SIP Call," an air quality protection effort initiated by EPA in 1998. The NO_x SIP Call requires 22 states and the District of Columbia to reduce emissions of NO_x during the summer ozone season.

NO_x is a precursor of ground-level ozone. It is a serious health hazard and a key ingredient in urban smog. The NO_x SIP Call sets a limit or "cap" on total NO_x emissions that NO_x sources in the 22-state region are allowed to emit during the summer ozone season (May 1 – September 30).

The purpose of the NO_x SIP Call is to reduce transport of NO_x from "upwind" states to "downwind" states. For example, transport of NO_x from Midwestern coal-fired power plants was identified as an important factor limiting the ability of East Coast urban areas to attain federal standards for ozone levels.

Most states affected by the NO_x SIP Call, including Missouri, have chosen to implement a cap-and-trade program centered on allocation and trading of 1-ton NO_x allowances.

Through a series of court decisions, Missouri's implementation of the NO_x SIP Call was delayed until the 2007 summer ozone season and was limited to the City of St. Louis and 36 counties in the eastern half of the state.

¹ EPA Office of Atmospheric Programs, *Guidance on Establishing an Energy Efficiency and Renewable Energy (EE/RE) Set-Aside in the NO_x Budget Trading Program*, 1999.

² The project sponsor is normally the project owner but can be any individual, group, organization or business that has the legal right to claim an award for an eligible project that is in operation. See Section 1 for more information on sponsor and project eligibility and Section 4 for additional definitions.

Missouri Rule 10 CSR 10-6.360, which became effective September 30, 2005, applies directly to electric power plants in eastern Missouri. The relevant sections of the rule are available at www.dnr.mo.gov/energy/renewables/set-asideprogram.htm. The rule lists all the “electric generating units” that are subject to NOx caps. Principally, these are power plants operated by three electric utilities - AmerenUE, Associated Electric Cooperatives, Inc. (AECI) and the city of Sikeston.

Power plants and industrial firms throughout the 22-state NOx SIP region are required to meet similar limits on their NOx emissions. If they cannot achieve the necessary emission reductions through emission controls, they must acquire more allowances. These region-wide requirements have created a fairly robust regional market for NOx allowances.

Overview of Missouri’s EE/RE Set-Aside

As an incentive to further reduce NOx emissions, Missouri rule 10 CSR 10-6.360 sets aside 134 NOx allowances annually to be awarded to EE/RE projects. The portion of the rule that establishes the set-aside is posted separately at www.dnr.mo.gov/energy/renewables/set-asideprogram.htm.

To qualify for an award, the project has to reduce NOx emissions from electric power plants during the summer ozone season, extending from May 1 through September 30 each year. DNR cannot award allowances to projects that reduce NOx emissions by less than one ton, calculated using conventional arithmetic rounding.³ DNR encourages project sponsors to aggregate projects to equal at least one ton of NOx reductions.

Appendix A provides illustrative examples of EE/RE projects that could qualify for the award of allowances and the number of allowances they might receive. The examples include both single-site and aggregate projects. The number of allowances awarded to a particular project depends on how much electricity use or generation it saves or displaces.

Important Dates

The following are important target dates and deadlines to participate in the first round of awards from the EE/RE Set-Aside. Awards from this first round will be denominated as 2007 ozone season allowances, also referred to as “2007 Vintage” allowances. DNR will publish a revised schedule of deadlines for subsequent award years.

- **March 15, 2006** -- deadline to request an early review of eligibility. Potential sponsors are not required to request an early review of eligibility but are strongly encouraged to do so because it could avoid costly misunderstandings or oversights that might easily be prevented through the early review.
- **May 1, 2006** -- the sponsor should have developed a plan for measuring and verifying the amount of electricity generation or electricity use reduction that the project will achieve during the summer ozone season (May 1- September 30). Allowances will be awarded only to sponsors who can demonstrate that their projects reduced NOx emissions during May 1- September 30, 2006.
- **May 1- September 30, 2006** -- operate the EE/RE project and collect data that will be used to demonstrate electricity savings or renewable generation that the project achieved.

³ As further defined in Section 4, under conventional arithmetic rounding, 0.50 ton would round to one (1) ton and 1.5 tons would round to two (2) tons.

- **November 30, 2006** -- deadline for sponsor to identify the Authorized Account Representative and submit an application to EPA naming this representative and requesting EPA to establish a trading account in their NOx Allowance Tracking System (NATS).
- **November 30, 2006** – deadline for sponsor to submit an Application for Initial Year Award to DNR. The sponsor's authorized account representative or alternate representative must submit the application.
- **November 30, 2006 -- February 1, 2007** – respond in a timely manner to requests for additional information about the project to assure that DNR can complete its review of the application prior to March 1, 2007.
- **March 1, 2007** – NOx allowances for projects will be awarded. By this date, sponsors must have established a trading account in EPA's NOx Allowance Tracking System (NATS) so that DNR can transfer allowances.

Several of these dates apply to sponsors whose projects commence operation between September 1, 2005, and May 1, 2006, and who are applying for the first round of set-aside awards based on emission reductions achieved during the 2006 summer ozone season. Projects with start dates that do not fall within this timeframe could still qualify for set-aside awards. A project that commences operation after May 1, 2006, and reduces NOx emissions during the summer 2006 ozone season could still qualify for awards based on its performance during the partial ozone season. A project that commences operation after September 1, 2006, could qualify for an award in subsequent years.

Section 1 – Project Eligibility

To be eligible for awards from the EE/RE Set-Aside, the following conditions must be met:

- The project must have a single sponsor who has the legal right to claim awards from the EE/RE set-aside.
- The project must be located in eastern Missouri with one exception. A renewable generation project may be located anywhere in Missouri if the project is sponsored by an electric utility that operates power plants in eastern Missouri.⁴

Eastern Missouri consists of the following jurisdictions: Bollinger, Butler, Cape Girardeau, Carter, Clark, Crawford, Dent, Dunklin, Franklin, Gasconade, Iron, Jefferson, Lewis, Lincoln, Madison, Marion, Mississippi, Montgomery, New Madrid, Oregon, Pemiscot, Perry, Pike, Ralls, Reynolds, Ripley, St. Charles, St. Francois, St. Louis, Ste. Genevieve, Scott, Shannon, Stoddard, Warren, Washington and Wayne counties and the City of St. Louis.

- The project must have commenced operation after September 1, 2005.
- The project cannot be required by federal government regulation or used to generate compliance or permitting credits otherwise in the State Implementation Plan.⁵
- The project must fit within one of the four eligible project types described below.

The Four Eligible Project Types

(1) Energy Efficiency Projects

A large variety of projects may be eligible under this category, including projects promoted by utility demand-side programs and projects in the residential, commercial and industrial sectors. To be eligible under this category, the project must reduce the consumption of electricity, measured in kilowatt-hours.

In most cases, eligible energy efficiency projects involve voluntary installation, replacement or modification of equipment, fixtures or materials in a building or facility.

The following list of examples, drawn from EPA, illustrates the range of energy efficiency projects that may be eligible.⁶

⁴ One exception, which applies only to the three electric utilities that are subject to emission requirements, is that if a renewable generation project is sponsored by an electric utility that operates power plants in eastern Missouri, the renewable generation project may be located anywhere in the state of Missouri. The three electric utilities that currently qualify for this provision are AmerenUE, Associated Electric Cooperatives, Inc. and the city of Sikeston. These utilities should consult with the Energy Center on the eligibility of specific renewable generation projects.

⁵ The restriction stated here, which is taken from EPA guidance, is the only anti-double-dipping provision now in place. In particular, sponsors WILL be permitted to apply for set-aside awards for EE/RE projects that have been funded with Energy Center loans or that have received other forms of EE/RE incentives. DNR reserves the right to consider eligibility on a case-by-case basis if other “double-dipping” issues should arise.

⁶ EPA Office of Atmospheric Programs, Creating an Energy Efficiency and Renewable Energy Set-Aside in the NOx Budget Trading Program: Designing the Administrative and Quantitative Elements, 2000.

End-use Energy Efficiency Technologies Potentially Eligible for Set-Aside Allowances (EPA)

<p><u>Lighting Technologies</u></p> <ul style="list-style-type: none"> • Lighting efficiency projects • Delighting • Lighting controls projects <p><u>HVAC and Refrigeration Technologies</u></p> <ul style="list-style-type: none"> • Chiller replacement projects • Air cooling and refrigeration compressor replacement projects • Packaged cooling unit replacement projects • Variable air volume conversion projects • Air side economizer projects • Water side economizer projects • Comfort cooling air handler motor efficiency upgrades • Air handler variable speed drive installations • Heating and cooling related savings from energy management systems • Cooling tower motor efficiency upgrades • Cooling tower motor variable speed drive installations • Constant speed ventilation • Evaporative cooling and pre-cooling • Exterior and interior window shading • Special window glazing and glazing treatments in air conditioned buildings • Hot-spot ventilation in air-conditioned buildings (such as attic vents and fans) 	<ul style="list-style-type: none"> • Heat transfer (including heat pumps) to heat sinks, such as ground source cooling in air conditioned buildings • Projects that upgrade the efficiency or controls of heating equipment • Refrigerated case door projects <p><u>Motors/Other Energy Efficient Technologies</u></p> <ul style="list-style-type: none"> • Variable speed drive installations on industrial fans and pumps • Industrial process applications • Projects improving building hot water efficiency • Cogeneration or Combined Heat and Power (CHP) projects <p><u>EPA List of Technologies “not recommended for Eligibility under the NOx SIP Call EE Set-Aside Program</u></p> <ul style="list-style-type: none"> • Actions with a measurable lifespan of less than three years • Measures that do not meet federal and state minimum energy efficiency standards • Actions that save energy because of operational changes • Load shifting technologies • Fuel switching projects • Measures that are removable without the use of tools
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The eligibility of energy efficiency projects sponsored by electric utilities will be determined on the same basis as eligibility of projects by other sponsors. Eligible electric utility energy efficiency projects could reduce parasitic load at generation facilities – such as electricity consumed by blowers, belts and grinders at a coal-fired plant – or make electricity use more efficient in other utility buildings and facilities such as lighting upgrades in a utility office building.

The EPA list includes several technologies not recommended for eligibility. Missouri’s policy is close to but not identical with these EPA recommendations. For example, eligible measures must have a reasonable degree of persistence such as the three-year lifespan recommended by EPA. To meet this persistence criterion, a measure such as "daylighting" would need to include actual fixture removal, not just delamping. Similarly, operational changes are not eligible because they are difficult or impossible to verify. EPA recommends that load-shifting projects not be eligible for EE/RE Set-Aside awards. However, to the extent load shifting projects accomplish a verified reduction in electricity consumption (measured in kilowatt-hours), they will be considered.

For example, thermal storage projects may reduce the amount of electricity required to provide a given amount of cooling. In such a case, the thermal storage project would be an eligible project that could receive an award based on the number of kilowatt-hours saved.

(2) Zero-Emissions Renewable Generation Projects

Projects that use any of the following renewable resources to generate electricity are eligible under this category:

- a) Electric generation from wind turbines;
- b) Electric generation from solar photovoltaic systems;
- c) Hydropower generation that meets one of these requirements:
 - i) Certified by the Low Impact Hydropower Institute;
 - ii) Employs a head of ten (10) feet or less; or
 - iii) Employs a head greater than ten (10) feet that makes use of a dam that existed prior to September 30, 2005; or
- d) Generation from biogas including landfill gas from sanitary landfills, biogas from wastewater or sewage treatment plants and biogas from anaerobic digesters in livestock operations.

Electric generation from geothermal resources is also eligible in theory; however, such projects are not likely to occur in Missouri. Ground source heat pump systems may be eligible as energy efficiency projects.

(3) Biomass Generation Projects

Both stand-alone generation and generation from biomass co-fired with one or more fossil fuels are eligible under this category. Eligible biomass resources include wood and wood waste, energy crops such as switchgrass and agricultural wastes such as crop and animal waste. Projects that generate electricity from municipal solid waste are specifically excluded in the rule establishing the set-aside program.

(4) Combined Heat and Power (CHP) Projects

CHP includes installations that use waste process heat to generate electricity and/or use the waste heat from electric generation for purposes such as steam, process heat, hot water, chilled water or space heating or cooling. In most cases, CHP projects would involve an industrial site or large commercial building that installs CHP to replace or displace electricity from existing electric utility sources.

Request for Early Review of Project Eligibility

Potential project sponsors are strongly encouraged to discuss their project with the Energy Center prior to the first summer ozone season during which the project will be in operation. The purpose of this early review is to avoid problems with project eligibility or project measurement and verification requirements.

At the project sponsor's request, the Energy Center will review whether the proposed project meets eligibility requirements such as location, ownership, implementation date and project type. Early eligibility review is not required to submit an application for an award, but it is highly recommended because it could avoid costly misunderstandings or oversights that might easily be prevented through the early review. The form to request an early review of project eligibility is included in Appendix B and at www.dnr.mo.gov/energy/renewables/set-asideprogram.htm.

In addition, the project sponsor should review the proposed measurement and verification procedure with an Energy Center engineer prior to the first summer of operations for which set-aside awards will be claimed. Contact information is provided in Section 5.

Project Sponsors

The project “sponsor” is the entity that applies for an award from the set-aside. Any individual, group, organization or business that can initiate, finance, or carry out projects that reduce electricity use or displace conventional fossil-fired electric generation can be a project sponsor. Examples of types of entities that can sponsor projects include the following:

- Commercial and industrial building owners and operators;
- Energy service companies (ESCOs);
- Home builders and associations;
- Home owners associations;
- Federal, state and local government agencies;
- Commercial businesses;
- Manufacturers and other industrial energy users;
- Schools and Universities
- Manufacturers leasing or selling high energy efficiency equipment;
- Merchant power generators; and
- Utilities.

DNR assumes that the owner of the site of the energy efficiency or renewable energy project is also the owner of any rights to NO_x allowances. Therefore, the site owner is the presumed project sponsor. However, the right to claim allowances as a project sponsor may also be assigned or sold to other persons or companies that can then become the sponsor for a project.

If several participants are collaborating on a project, the various parties must resolve sponsorship interests in the project and designate a single NO_x authorized account representative (AAR) for the project. The authorized account representative and alternate representative are explained in Section 2.

Aggregate projects may involve multiple sites and owners and an “aggregator” such as an energy services company (ESCO) who is different from the site owner(s). When a sponsor submits an aggregate project for award from the set-aside, DNR assumes the project sponsor has obtained the legal right to the award. However, the application form requires the sponsor to identify any parties that might potentially present conflicting claims to awards.

If DNR receives more than one request for NO_x allowances for the same project, DNR will return both requests to the sponsors. The sponsors must determine who will make the request and the ultimate ownership of any NO_x allowances. DNR will not act as a mediator in situations where more than one project sponsor requests NO_x allowances for the same project.

If DNR receives multiple applications from a single sponsor, DNR may request that the sponsor consolidate the applications.

Section 2 – Application Process

Eligibility for an award from the EE/RE Set-Aside does not guarantee the project will qualify for an award. The sponsor must demonstrate that the project has reduced summer ozone season NOx emissions from electric generation. In addition, the sponsor must establish an account in EPA's NOx Budget Tracking System to which allowances can be transferred.

The process to accomplish this is:

- 1) Establish a general trading account within EPA's NOx Allowance Tracking System (NATS). The form submitted to EPA requires the sponsor to name an authorized account representative. The request must be made to EPA using the EPA form referenced in Appendix F.
- 2) Apply for an award using the form in Appendix C. The authorized account representative must submit this form. The application must demonstrate that project activities have resulted in NOx reductions during the summer ozone season.

Applicants must use the form supplied by DNR. The purpose of the form is to assist potential applicants and to help assure that applications provide complete and consistent project information and documentation of project results. The form is available on the Web at www.dnr.mo.gov/energy/renewables/set-asideprogram.htm

- 3) For up to an additional four years, annually submit a Reapplication for Award form that is in Appendix D and is available on the Web at www.dnr.mo.gov/energy/renewables/set-asideprogram.htm.

Missouri Rule 10 CSR 10-6.360 allows a project to qualify for up to five years of awards from the EE/RE Set-Aside. To qualify for awards, the reapplication must demonstrate that project activities have continued to result in reductions of summer ozone season NOx emissions.

On March 10, 2005, EPA issued its Clean Air Implementation Rule (CAIR), which sets new limits on NOx and SO2 emissions. Like the NOx SIP call, CAIR is intended to reduce interstate transport of air pollutants. Missouri is required to develop a plan for implementing CAIR by September 2006.

Missouri's implementation of CAIR is expected to supersede aspects of its implementation of the NOx SIP call including the availability of allowances for EE/RE projects after 2008. Missouri may include an EE/RE Set-Aside in its implementation of CAIR. A CAIR EE/RE Set-Aside would provide continuity of awards for EE/RE projects that initially qualified under Missouri's NOx SIP Call rule.

Before receiving an award from the set-aside, projects must obtain any required environmental permits. Achieving eligibility for awards from the NOx SIP Set-Aside should not be construed as meeting or guaranteeing that the sponsor will meet requirements for air, water or other required environmental permits issued by DNR.

DNR Review Process

DNR's Energy Center will determine project eligibility and the number of allowances to be awarded. The DNR-Air Pollution Control Program (APCP) will be responsible for the actual allocation of NOx allowances to an individual project sponsor.

Upon receipt of an application, the following will occur:

1. Between November 30 and March 1, the DNR Energy Center will review applications to determine that projects are eligible and the applications are complete. In some cases, the Energy Center may request additional information.
2. For eligible and complete applications, the Energy Center will review the application and calculate the total number of allowances the projects are qualified to receive. In some cases, the Energy Center may request additional information or a site visit.
3. If the Energy Center agrees with the information, submitted and if there are sufficient allowances in the set-aside account (see #5 below), DNR-APCP will request EPA to transfer the number of NO_x allowances requested by the project sponsor to the sponsor's NATS account.
4. The Energy Center may determine that the number of NO_x allowances should be adjusted. This number may be smaller or larger than that requested. The Energy Center will inform the sponsor of this decision before any allowances are transferred.
5. Oversubscription: A total of 134 allowances is available each year to be awarded from the EE/RE Set-Aside. If the total number of eligible and qualified requests is greater than the number of allowances in the set-aside, DNR will determine awards based on the eligibility queue. In doing so, DNR will generally determine awards on a first-come, first-served basis, but may prioritize certain types of projects in assigning awards.
6. Undersubscription: If the total number of eligible and qualified requests is less than the number of allowances in the set-aside (134), DNR will request EPA to transfer the surplus allowances to electric utilities on a pro rata basis in the same proportion as allocations to NO_x budget units set out in 10 CSR 10-6.360.

When DNR requests that EPA transfer NO_x allowances to the sponsor's NATS Account, the project authorized account representative will receive a copy of the request. The actual transfer of NO_x allowances into accounts is completed by EPA. The status of all NO_x accounts is available on-line at www.epa.gov/airmarkets/tracking/index.html#queries.

Allowance Calculations

Appendix E provides the equations that must be used to calculate the number of NO_x allowances a stand-alone or aggregate project is qualified to receive. The project sponsor should use these equations when requesting awards from the set-aside.

As used in these equations, "allowances" means the number of allowances to be awarded to a project sponsor. This is equivalent to the amount of central power plant NO_x emissions avoided during the summer ozone season rounded to the nearest whole ton. DNR, following EPA guidance, does not require the sponsor to demonstrate the location of the power plants where the NO_x emission reductions occur. EPA guidance is that emission reductions may be presumed to occur within the 22-state region affected by the NO_x SIP call.

When calculating how many allowances a stand-alone or aggregate project is qualified to receive, rounding to the nearest whole ton is necessary because the EPA account tracking system only works with whole NO_x allowances. Conventional arithmetic rounding as defined in Section 4 should be used for this purpose. Appendix A provides illustrative examples of EE/RE projects that could qualify for the award of allowances and the number of allowances they might receive.

Section 3 – Measurement and Verification (M&V)

The application for an award from the EE/RE Set-Aside must include provisions for measuring and verifying the data used to calculate the allowances a project is qualified to receive.

Project sponsors are strongly encouraged to contact the Energy Center to review the proposed M&V procedure prior to the first summer of operations for which set-aside awards will be claimed.

For most energy efficiency projects, the use of savings calculation equations and a utility bill analysis may be sufficient to satisfy measurement and verification requirements. Sponsors of zero-emissions renewable generation projects are required only to measure and verify generation data that is readily submetered. Biomass generation and CHP projects may require determination of a NO_x emissions rate for the project. This should be determined on a case-by-case basis in consultation with DNR.

EE/RE projects produce emissions benefits throughout the entire year. However, in accord with EPA guidance, only the electricity savings and displacements that occur during the summer ozone season (May 1 through September 30) are relevant for the purpose of determining awards of NO_x allowances. The reason for limiting the calculation of emissions benefits to this five-month period is that the period of compliance for sources in the NO_x Budget Trading Program is the summer ozone season.

Calculating and Verifying Energy Savings from Energy Efficiency Projects and Programs

Sponsors of energy efficiency projects should pay close attention to establishing baseline electricity use data. Baseline data are required to calculate the post-project reduction in electricity use that can be attributed to the project implementation.

DNR's set-aside application form requires the sponsor of an energy efficiency project to document past energy consumption, energy generation, rated energy efficiency or billing data that may facilitate review of the project. The purpose of this historic data is to provide a more adequate basis for estimating baseline electricity use. Historic data is not required for construction of new projects generating electricity.

Sponsors of new energy efficiency projects that are not a retrofit or upgrade should calculate energy savings by comparing the energy efficiency of comparable current industry-standard equipment to the equipment used in the project. Selecting Energy Star equipment for a project can simplify the calculation of the savings.

Sponsors of energy efficiency projects may calculate energy savings on a program rather than a project basis. A program is a group of projects, with similar characteristics and installed in similar applications – such as a utility program to install energy efficient lighting in commercial buildings, a developer's program to build a subdivision of homes that have photovoltaic systems, or a state residential energy efficiency code program.

The difference between project and program M&V is that with projects, each project is evaluated, while with programs, a sample of projects is selected for evaluation and the results of the evaluation are applied to the entire program "population" of projects.

Accepted M&V Options for Energy Efficiency Projects and Programs

If analytical predictions, utility bill analysis or submetering are not adequate for M&V, DNR recommends that sponsors of energy efficiency projects base their M&V methodology on an accepted M&V protocol or guidance document. Accepted M&V protocol and guidance documents include the following.

(1) *International Performance Measurement and Verification Protocol (IPMVP)*

Organization web site is www.ipmvp.org/.

PDF version: www.fypower.org/pdf/measurement.pdf.

(2) *EPA Conservation Verification Protocol (CVP)*

www.epa.gov/airmarkets/arp/crer/cvpsumm.html

Note: the EPA CVP is probably more stringent than required for Missouri set-aside M&V but it is included for completeness.

(3) U.S. Department of Energy's *M&V Guidelines: Measurement and Verification for Federal Energy Projects, Version 2.2*

HTML version: http://metering.pnl.gov/femp_2.2/FEMP22_secTOC.htm.

PDF version: www.eere.energy.gov/femp/pdfs/26265.pdf

(4) *New Jersey Measurement Protocol for Commercial and Industrial Facilities*

www.nj.gov/dep/baqp/Measurement%20Protocols.pdf

(5) *ASHRAE Guideline 14-2002: Measurement of Energy and Demand Savings.*

Available for purchase from ASHRAE. Purchase information is available at

www.ashrae.org/template/AssetDetail?assetid=15275

Section 4 – Glossary of Abbreviations, Acronyms and Definitions

Aggregator – A project sponsor who submits an application covering a number of projects and adding together (aggregating) their emission reductions. Typically the projects aggregated are small projects that individually cannot meet the minimum requirement of reducing one ton of NOx emissions.

Authorized Account Representative – The sponsor’s representative for all official business related to the sponsor’s General Account in the NOx Allowance Tracking System. The Representative is named in the sponsor’s application to EPA to set up a NATS general account.

Conventional arithmetic rounding – The mathematical convention of converting fractional amounts to integers by “rounding down” to the nearest integer if the fractional portion is less than half a unit and “rounding up” to the nearest whole unit if the fractional portion is half a unit or greater. For example, a project that yields a result of 1.3 tons (2,600 pounds) of NOx displaced would qualify for an award of one (1) allowance. A project that yields 0.5 tons (1,000 pounds) of NOx displaced would qualify for one (1) allowance and a project that yields 1.8 tons (3,600 pounds) of NOx displaced would qualify for two (2) allowances.

DNR - Acronym for Missouri Department of Natural Resources

EE/RE – Acronym for Energy Efficiency and Renewable Energy

Eastern Missouri - Consists of the following counties: Bollinger, Butler, Cape Girardeau, Carter, Clark, Crawford, Dent, Dunklin, Franklin, Gasconade, Iron, Jefferson, Lewis, Lincoln, Madison, Marion, Mississippi, Montgomery, New Madrid, Oregon, Pemiscot, Perry, Pike, Ralls, Reynolds, Ripley, St. Charles, St. Francois, St. Louis, Ste. Genevieve, Scott, Shannon, Stoddard, Warren, Washington and Wayne counties and the City of St. Louis.

NOx SIP Call - An air quality protection effort initiated by the U.S. Environmental Protection Agency (EPA) in 1998. The NOx SIP Call requires 22 states and the District of Columbia to reduce emissions of nitrogen oxides (NOx) during the summer ozone season.

M&V – Acronym for Measurement and Verification.

NATS – Acronym for NOx Allowance Tracking System, the system established by the EPA for recording the holding and transfer of NOx allowances among various entities.

Sponsor – The entity submitting an application for award from the set-aside. Often, but not necessarily, the owner or aggregator of the project. Examples of types of entities that can be project sponsors include commercial and industrial building owners and operators; energy service companies (ESCOs); home builders and associations; home owners associations; federal, state and local government agencies; commercial businesses; manufacturers and other industrial energy users; schools and universities, manufacturers leasing or selling high energy efficiency equipment; merchant power generators; and utilities.

Summer Ozone Season - May 1 through September 30 of each year.

EPA – Acronym for U.S. Environmental Protection Agency.

Vintage – The year in which NOx allowances are denominated. For example, vintage 2007 allowances are allowances to emit NOx during the Summer 2007 ozone season.

Section 5 – Contact and Resource Information

EPA Contacts and Information

The EPA form to establish a general account in EPA's NATS is available at www.epa.gov/airmarkets/forms/nbtp/SIPgenform.pdf. Submission information is included in the form.

Questions about EPA's allowance tracking system should be addressed to one of the following persons at EPA's Clean Air Markets Division:

- Mary Shellabarger - (202)343-9188
- Beth Murray - (202) 343-9115
- Kenon Smith - (202) 343-9164
- Paula Branch (202) 343-9168

EPA information about the NOx SIP Call and NOx Budget Trading Program is available at www.epa.gov/airmarkets/fednox/index.html.

EPA information about CAIR is available at www.epa.gov/cair/rule.html.

DNR Contacts and Information

DNR's Air Pollution Control Program (APCP) will handle all actual allocation and transfers of allowances. Questions may be addressed to Rick Campbell at (573) 751-4817.

DNR's Energy Center will review eligibility and applications for awards from the EE/RE Set-Aside. Requests for Early Review of Project Eligibility should be addressed to Mike Bumgardner. Questions about eligibility may be addressed to Mike Bumgardner or John Noller. Questions about the status of applications should be addressed to Kay Johannpeter. Contact information is below.

Missouri Energy Center
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Missouri EE/RE Set-Aside Web site: <http://www.dnr.mo.gov/energy/renewables/set-asideprogram.htm>

Third party information about market trading and value of NOx allowances is available at www.evomarkets.com/.